PP-030 Pattern and frequency of nosocomial infections among Asian Pakistani patients in ICU: an observational study

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Introduction: Nosocomial infection is one of the leading causes of morbidity and mortality around the world. It usually develops 48–36 hours after admission in hospital or health care unit or within 48 hours after being discharged. Its prevalence is remarkably high among patients being treated in the intensive care (ICU). The aim of this study was to evaluate the pattern and frequency of Nosocomial infections among ICU admitted patients along with making an estimate of their etiology.
Methods: An observational study was conducted at DHQ Hospital, Rawalpindi, Pakistan for a period of 1year from January 2010 till December 2010. Department of medicine, pathology and intensive care collaborated simultaneously to collect the data. Adult patients aged above 18 years, admitted in ICU irrespective of the cause were recruited. Out of them, participants who stayed for more than 48–36 hours in the ICU and have clinical manifestations of infection highly suspicious of being as nosocomial, and with out history of infection at the time of hospital admission were focused to collect the relevant information and investigations. The clinical and microbiological data was obtained on a pre-defined research sheet, and was analyzed by using SPSS version 15. A P-value of <0.05was considered significant.
Results: Out of a total of 754 patients recruited, 213 acquired Nosocomial infection in the ICU. Respiratory infections were at the top (42%) followed by urinary tract infections (35%). The prevalence of Nosocomial infection was higher among subjects with concomitant diseases like hypertension, diabetes mellitus and advancing age. Smokers (23%) were prone to get respiratory Nosocomial infections (74%). Blood stream infection was 26%, followed by gastrointestinal and surgical infections.
Conclusions: ICU admitted patients are prone to more and severe nosocomial infections. Respiratory infections are at the top, the prime cause being smoking. Overall, nosocomial infections can be limited by adequate and standardized nursing health care, so as to decrease the burden of infections on intensive health care system.

PP-031 Treatment of chronic osteomyelitis

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Introduction: Chronic osteomyelitis is a highly debilitating condition that causes significant morbidity and has been defined as a recalcitrant disease, because it is a very difficult condition to treat. A free muscle flap can be used in patients with a large defect of soft tissue and bone after debridement of an osteomyelitic lesion if the flap can be elevated and transposed into the defect without compromising its vascular supply. Although they are not applicable to the treatment of all patients with osteomyelitis, free muscle flaps can be extremely useful in the treatment of this lesion. When combined with thorough debridement and specific antimicrobial therapy, it has become a successful technique in the management of chronic osteomyelitis.
Radical debridement of all involved soft and hard tissues, obliteration of dead space, and neovascularization of the involved area are obligatory for successful management of the disease. After free muscle transfer, the optimal environment for secondary bone reconstruction is created. To determine the effectiveness of this procedure, 10 patients with chronic osteomyelitis treated as describe below.
Case description: We present ten patients with chronic osteomyelitis and no response to antibiotics. Mean age at onset was 25 years and mean duration of infection was 18 months. The patients managed with radical debridement and sequestrectomy and free muscle transfer. Postoperatively a course of a parenteral ceftriaxone in combination with an aminoglycoside was given. With a mean follow-up of at least 6 months all patients remained symptom free. our results indicate that this long-term problem can be solved by the explained procedure. However definite conclusions should be reserved for prolong follow up.
The success of this method lies in the introduction of a new vasculature, which provides nutrients, sufficient antibiotics, host defence system and osteoprogenitor cells to the post-sequestrectomy bed.

PP-032 Detection of TEM gene in *Pseudomonas aeruginosa* isolated from burn wound infections in Iran

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Background and Objective: Due to the high mortality of burn wound infections caused by *P. aeruginosa* and increase of prevalence of resistance, the objective of this study is the detection of antibiotics susceptibility pattern (study of phenotypic) of the bacteria in the respective infection and incidence of TEM gene.
Methods: 116 clinical isolates of *P. aeruginosa* collected from Tehran motahari hospital in 2010. Phenotypic detection of ESBLs was used for screening of isolates by agar diffusion (Kirby-Bauer) method (according to CLSI advised). Screen positive isolates were then subjected to PCR for detection of TEM gene.
Results: Primary phenotypic and confirmation tests revealed that 81 percent (94 isolated) of *P. aeruginosa* produced ESBLs.TEM gene was found in 19.1% (18 out of 94) by PCR method. Signification relationship between phenotypic and genotypic resistance was found by using the SPSS program and chi-square test. ($P < 0.05$).
Conclusions: Due to the high level of resistance there due to the production of ESBLs in *P. aeruginosa* and signification relationship with the TEM gene, it is important to control the way in taking as a national study to determine the pattern of phenotypic and genotypic resistance in Iran seems to be necessary.

PP-033 Pattern of "ciprofloxacin; ceftazidim" and "Aminoglycoside; ceftazidim" in treatment of infected burn wounds caused by *Pseudomonas aeruginosa*

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Background and Objectives: Infection is the most common cause of death following burn injury. Burn patients are obviosly at a high risk for nosocomial infection due to immunocomprizing effects of burn injury. *P. aeruginosa* is an apportunistic pathogen that produced a number of unique virulance factors. The aim of this study was to compare the antibiotic resistance of different straines of *P. aeruginosa* isolated from infected burn